<center>**CLAIM AMENDMENTS**</center>

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.   (Previously Presented) A method of transmitting packets comprising:

copying a protocol control block from a host processing system to a network protocol offload engine;

providing message information to the network protocol offload engine, the message information containing a message buffer location in a host memory;

generating one or more message contexts in the offload engine from the message information to indicate the message buffer location rather than copying the message buffer to the offload engine;

performing protocol processing at the offload engine while leaving the message buffer in the host memory; and

transmitting the message buffer in the form of at least one packet payload directly from the host memory to a network communication link, without intermediate buffering of the at least one packet payload by the offload engine, during transmission of packets by the offload engine.

2.   (Original) The method of claim 1 wherein said transmitting the message buffer comprises retrieving the message buffer from the host memory via cut-through transmissions.

3.   (Original) The method of claim 2 wherein said cut-through transmissions comprise direct memory access copies.

4.   (Original) The method of claim 1 wherein said performing protocol processing comprises processing TCP segments.

5.   (Original) The method of claim 4 wherein said performing protocol processing comprises generating TCP headers for the TCP segments.

6.   (Original) The method of claim 1 further comprising freeing the one or more message contexts upon acknowledgement of the packet payload delivery.

7.   (Original) The method of claim 1 further comprising providing message completion information to the host processing system to release message buffers containing the packet payload.

8.   (Original) The method of claim 1 wherein said performing protocol processing comprises processing machine-readable instructions stored in a storage medium.

9.   (Previously Presented) A network offload engine comprising:

       a first interface to a host processor to receive a copy of a transmission control protocol block;

       a second interface to a communication link to copy packet payloads from a host buffer onto the communication link; and

       an engine to perform protocol processing with information from the transmission control protocol block and additional information concerning a location of the packet payloads in the host buffer, the engine to create and to send packets on the communication link according to the protocol processing with the information from the transmission control protocol block and the additional information concerning the location of the packet payloads in the host buffer while leaving the packet payloads in the host buffer, the packet payloads being directly copied from the host buffer to the communication link, without intermediate buffering of the packet payloads within the engine, to complete packet transmissions.

10.   (Original) The network offload engine of claim 9 wherein the additional information concerning the location of the packet payloads in the host buffer comprises at least one message context.

11.   (Original) The network offload engine of claim 9 wherein the communication

link comprises unshielded twisted pair wire for Ethernet communications.

12.   (Original) The network offload engine of claim 9 wherein the direct copy of the
packet payloads from the host buffer comprises a cut-through transmission of the packet
payloads to the communication link of the network offload engine.

13.   (Original) The network offload engine of claim 12 wherein the copy of the
packet payloads from the host buffer comprises a direct memory access engine to copy
the packet payloads from the host buffer.

14. - 16.   (Cancelled)

17.   (Previously Presented) An article comprising:
        a storage medium comprising machine-readable instructions stored thereon to:
perform protocol processing at an offload engine while leaving a packet payload of a
packet in a host memory;
        access one or more message contexts that contain the packet payload address
from the host memory to complete the protocol processing; and
        transmit the packet payload directly from the host memory to a communication
link, without intermediate buffering of the packet payload within the offload engine,
during transmission of the packets by the offload engine.

18.   (Original) The article of claim 17 wherein the storage medium further comprises
machine-readable instructions to free message contexts upon receiving an
acknowledgement of payload delivery.

19.   (Original) The article of claim 18 wherein the storage medium further comprises
machine-readable instructions to instruct the host processing system to release message
buffers of the host memory upon receiving the acknowledgement of payload delivery.

20.   (Original) The article of claim 17 wherein the storage medium further comprises

machine-readable instructions to instruct the host processing system to perform protocol processing for TCP segments.

21.   (Original) The article of claim 20 wherein the storage medium further comprises machine-readable instructions to instruct the host processing system to generate a TCP header for the TCP segments.